1405, Washington Com Schools

PROJECT ABSTRACT

The Enhancing Education Through Technology (EETT) grant will help us address the low test scores and reading levels of our students by providing the tools teachers need to create an atmosphere where students will become more engaged in the learning process. Students will better retain information and will be more motivated to learn. Every teacher and student at Washington Community Schools will be impacted by the funding from this grant.

Following a comprehensive study of the technology needs of Washington Community Schools it was determined there are three significant areas of need that must be addressed before we are able to move forward with the School Improvement Plan. They are 1) bandwidth and connectivity, 2) communication and collaboration, 3) creating a more engaging environment for students. Once these issues are addressed we will then be able to better assist our at-risk population and close the gap in student achievement that is keeping us from making AYP.

The first area of significant need is bandwidth and connectivity. The bandwidth issue will be addressed by increasing the available bandwidth at the junior high and senior high buildings. Currently teachers in these buildings are unable to access most internet resources, including streaming media. By adding the bandwidth, teachers and students will have access to online tools not previously available. At Veale Elementary there is no usable internet connection. The plan is to provide a wireless connection between this building and the high school.

The second area to be addressed is communication and collaboration. A significant part of this plan includes the utilization of The Learning Connection. It will become our primary communication tool to improve collaboration between teachers within our corporation as well as resources outside the corporation. All teachers will be expected to use The Learning Connection and a major component of our professional development will focus on the effective use of this tool. Communication to and from parents will also be enhanced by its use.

The third area of need is for our corporation to create a more engaging environment for students. Along with improved Internet availability, the addition of LCD projectors and interactive systems will aid the teachers in effectively reaching all students in ways not currently possible. At this time there are no interactive boards in the entire corporation and no mounted projectors in the elementary buildings. With this grant we will be adding 16 interactive boards, 16 classroom response systems, and 10 LCD projectors. To improve ECA and ISTEP scores in math we will be adding 3 classroom sets of graphing calculators for the high school teachers to share.

Success of the project will be determined by a variety of benchmarks. We will conduct multiple teacher and student surveys to determine our progress with the use of technology. Student improvement will be monitored by scores on DIBELS and Quarterly Tests, SSP (ongoing progress assessment tool), Data Dashboard, the ISTEP+, End of Course Assessments, and AP Exams.

Staff development in this project will be focused on increased teacher use of technology to support student learning. Specifically, how the use of the internet, projectors, and interactive systems will positively affect the instructional methods and support Indiana curriculum standards. In addition to the mechanics of using these tools, staff will have appropriate training on how to effectively use technology in the classroom to enhance and enrich their own curriculum. The use of The Learning Connection, Learn360, and other online resources will also be a significant component of our professional development.

We have chosen to partner with nearby Pike County School Corporation to share curriculum and technology ideas. This relationship has been developing over the last few years and will enhance each corporation¿s utilization of technology in the classroom.

NEEDS/BASELINE

Washington Community Schools is a small town, rural community with 53% of the students qualifying for free or reduced lunch. A significant gap in performance of our students¿ reading achievement and their mathematics achievement continues to exist, and is cause for concern. There are five specific areas of focus for this project over the next three years.

1) Percent of students reading on or above level - grades 1 through 8

2) Percent of students passing ISTEP+ - grades 3 through 8

3) Percent of students passing End of Course Assessments - grades 8 through 10

4) Scores on Advanced Placement Exams in Calculus and Physics - grades 11 & 12

5) Staff's level of knowledge and application of technology

1) Our corporation¿s 3-year average of reading on or above grade level is 67%. In March of 2009, all students in grades 8 and 9 were tested using the GRADE (Group Reading Assessment and Diagnostic Evaluation) reading assessment focusing on sentence and passage comprehension, vocabulary and listening comprehension. The results revealed that in eighth grade, 48% scored below grade level, while 46% of the ninth grade scored below grade level. In August of 2009, all students in grades 2-7 completed an assessment using Star Reading. The results are still being analyzed but clearly showed an issue with reading levels, especially as the students got older.

2) The 3-year average of passing ISTEP+ in English is 67% and in Math is 71%. Also, the ISTEP scores in sophomore math and language arts for the past five years have averaged 58.1% while the state average has been 72.8%, keeping Washington High School from meeting AYP each year.

3) We have very low results in our End of Course Assessments as well. The percent of students passing the Algebra ECA is 30%, English is 48%, and Biology is 32%.

4) Recent Advanced Placement scores in Calculus and Physics reflect the need for a change in instructional approach for students. On the AP Calculus exam, five students scored 1 and one student scored 2. On the AP Physics exam, ten students scored 1 and five students scored 2.

5) Many teachers have never used much of the technology available to them as indicated in a survey given in the fall of 2008. This is primarily due to lack of knowledge and understanding the value technology tools can bring to the classroom. Another contributing factor is the limited internet bandwidth and connectivity. Veale Elementary has an unreliable 512K internet connection for the entire building. Washington Junior High and Senior High buildings are sharing two T1 connections. Without improved internet access, teachers are unable to fully utilize online resources and web based applications.

GOALS/OBJECTIVES

Technology Utilization Goals:

1. By October, 2010, 40% of all teachers will incorporate the use of The Learning Connection as a communication and collaboration tool.

2. By May, 2011, 75% of all teachers will incorporate the use of The Learning Connection as a communication and collaboration tool.

3. By October, 2010, 30% of all teachers will incorporate the use of online media, such as Learn360, and/or an interactive system into his/her classroom at least twice a week.

4. By May, 2011, 50% of all teachers will incorporate the use of online media, such as Learn360, and/or an interactive system into his/her classroom at least twice a week.

Student Achievement Goals:

1. The percent of students reading on or above grade level will increase from 67% to 70% in the fall of 2010, 73% in 2011, and 76% in 2012.

2. The percent of students passing ISTEP+ in English will increase from 67% to 70% in spring of 2010, 73% in 2011, and 76% in 2012.

3. The percent of students passing ISTEP+ in Math will increase from 71% to 74% in 2010, 76% in 2011, and 78% in 2012.

4. Increase the percent of students passing the End of Course Assessments by 5% each year through 2012.

5. Improve AP Calculus and AP Physics scores to where at least a third of the students are receiving a 3, 4 or 5 on the test by the 2010/11 school year.

METHODS/ACTIVITIES

With the improved access to technology, teachers will be able to utilize interactive lessons, differentiate instruction, take students on virtual fieldtrips, provide quality simulations, view ancient maps, and other multi-media presentations. The classroom response systems will be used for immediate feedback on student mastery. They will ensure 100% participation by engaging students and will allow them freedom to respond without fear. Teachers will then be able to adjust instruction accordingly. Web resources will now be available, in a format that all can see, rather than directing students to a particular website that they will need to view at a later time. Textbook adoption software and other curriculum support resources will be readily available and can be used to enhance the instruction time and build background knowledge. Resources such as The Learning Connection and Learn360 will be essential, allowing teachers to easily find and use digital media to make an immediate impact on classroom instruction. These tools will provide standards based curriculum to enhance the educational process. Our Advanced Placement and dual credit instructors will have available many more tools to use in those classes, allowing teachers to supplement instruction in a way not previously possible. Project Lead the Way and Project Based Learning will be used to increase student interest and engagement. Higher order thinking skills and creativity will provide rigor and relevance and turn classrooms into small learning communities.

Below is a sampling of online resources for teachers that include lesson plans, interactive activities and links to more online resources.

* https//learningconnection.doe.in.gov/

* http//www.learn360.com/

* http://apstrategies.org/ - Resources for Advanced Placement Teachers

* http://www.thinkfinity.org/home.aspx - comprehensive digital platform of resources for students and teachers, includes lesson plans, interactive activities and links

* www.geogebra.org - free mathematics software for schools

* http://www.thatquiz.org/ - extra math practices

* http://www.loc.gov/index.html - Library of Congress, for written and spoken words, pictures, movies, maps, etc.

Teacher collaboration, both within Washington Community Schools and between Washington and Pike County, allows for idea sharing and further development of technology integration methods. Further details of our professional development plan are outlined below.

A STEM (Science Technology Engineering and Math) model program will be added to the curriculum for all students grade 7-12. A task force of teachers, in differing grade levels, will meet monthly for the 2010/11 school year to further develop the curriculum and implementation plan. Washington will begin participating in PRISM, which is a collaborative forum for teachers in Math and Science through Rose-Hulman. This plan will begin with the 2011/12 school year and incorporate the many resources available online, some of which are listed below.

* http://www.stemedcoalition.org/ - STEM for Education Coalition

* http://www.istemnetwork.org/ - Indiana STEM Network Resource

* http://education.uncc.edu/cmste/ - Center for Math, Science, and Technology Education

The addition of bandwidth and interactive systems will allow for many teacher resources related to STEM be incorporated into the curriculum and utilized on a daily basis. Research has shown the more access students have to relevant material, especially in the areas of science and technology, the greater the increase in student learning that takes place.

Students will utilize Web 2.0, Moodle and other online tools and technology to create multimedia presentations, demonstrations, animations and video productions. Technology will be used to find information, collect and organize data, and present findings. Using decision-making skills, students will generate learning artifacts to show their understanding.

PROFESSIONAL DEVELOPMENT

The professional development in this project will happen in several stages. It will be ongoing and used to provide rigor and relevant course content tied to the Indiana Academic Standards. Teachers will become familiar with the available technology and then expand to collaboration with other teachers both from Washington and Pike County. Later sessions will be designed to help them further integrate different technology tools into instruction. This collaboration will continue well past the grant cycle.

The first step will be to determine the Technology Integration Specialists (TIS). One teacher from each building will be designated as this resource person to provide training and side by side mentoring. The six teachers will be identified prior to March 2010. For these teachers there will be release time to travel to Pike County School Corporation and observe classrooms to see how technology is being utilized. Their observations in schools where this technology has been successfully implemented will be instrumental in encouraging the other Washington teachers to learn and gain confidence in their efficacy in using technology in instructional settings. These teachers will also be spending a large amount of time outside the normal school day, researching, collaborating, and preparing for presentations to other staff, thus a small stipend will be paid for this extra time.

The first level of training will involve the use of The Learning Connection. We will begin by introducing this digital media to all staff at each building staff meeting in February. Each building will have one or two days scheduled in March, 2010 for training by the Technology Integration Specialist (TIS). Substitutes will be hired and the teachers will be given release time. The TIS will be leading the training and assisting with implementation.

The second phase of training will occur over the summer of 2010. In the months of June and August there will be half-day sessions offered on a variety of topics, six in each month. Teachers will be expected to attend two half-day sessions over the summer. These sessions will be scheduled in conjunction with representatives from Pike County and could include, but are not limited to the following topics: Using Technology to Differentiate Instruction, Active Learning with Technology, Using Multi-media to Enhance Teaching and Learning, Transforming Learning Through Web 2.0, Increasing Student Reading Levels with the Use of Study Island, Online Reading & Writing Activities, Using Data Dashboard to Drive Instruction, Using Star Reading and Accelerated Reader to Improve Achievement.

The third phase will become more collaborative in nature. Fifteen before and after school sessions will be scheduled throughout the 2010/11 school year. These sessions will last one hour and teachers will be expected to attend a minimum of three during that time. The sessions will include time for teachers to share how these tools are working in their classrooms and creative activities they have implemented. The TIS will be there to answer questions the teachers might have and present topics of interest in regards to the use of the projectors, tablets, interactive systems, and online tools. The effectiveness of these training sessions will be measured by evaluations filled out by the attending teachers. Feedback from those evaluations will help guide the topics covered by future sessions.

FORMATIVE/SUMMATIVE EVALUATION

There are a variety of means that will be used to measure the success of the project implementation.

All students will be assessed in multiple ways. Quarterly tests along with SSP (on-going progress assessment tool) will be used to measure student progress. The ISTEP+ test will be utilized as a progress indicator for grades 3-8 while End of Course Assessment will be used at the high school. Teachers and staff will also look for positive trends in the percentage of students taking AP courses and their resulting test scores.

Teachers will be using Data Dashboard to monitor student progress in standards mastery in Math, English/Language Arts, and reading levels. They will be using this data to guide instruction. Students have individual data folders to track his/her progress in improving their reading level.

Students will be given a survey in May 2010 and again in May 2011. The survey will grade us on "How are we doing?" in regards to technology implementation and creating an engaging environment.

Staff will be encouraged to give feedback throughout the implementation process. Attendees will complete evaluations at each professional development activity. Based on the results of these evaluations, future professional development opportunities can be refined to better fit the needs. Staff

surveys will be disseminated in March 2010, November 2010, and May 2011 for the purpose of determining the success of the project. Questions contained in this survey may include:

¿ Is the technology working properly?

¿ Have you had enough training on it?

¿ Is it an effective tool for you to use in your classroom?

¿ What additional training would be helpful?

¿ What are some examples of success?

Answers to questions such as these give the management team a chance to tailor future professional development to the identified needs in a way that will provide the greatest benefit to the students.

Teacher lesson plans and administrative observations will also document how often the technology tools are being utilized and how they are helping to differentiate instruction.

LOCAL MATCH

To complete this phase of our long term goals of using technology to improve instruction, Washington Community Schools will need approximately $222,025. Washington¿s portion of the base award is $145,868. The balance of the project, $76,157, will be funded by Capital Projects Fund and General Fund. Washington will purchase a new server, software, and increase bandwidth at the junior high and senior high buildings. We will pay for electrical upgrades needed for the LCD projector installations and install a WAN connection between Veale Elementary and the high school. Our community, administration, and staff support this project in its entirety and we expect to spend these local dollars to complete it. The local contribution is over 50% of the base award available for Washington.

PARTNERSHIPS

We will partner with nearby Pike County School Corporation to share curriculum and technology ideas. Teachers from both corporations will participate in on-going collaborations to ensure that the grant leads to academic achievement. Many of Pike County's teachers are proficient in Moodle, blogging, distance learning, and other forms of technology that we have not had available. The collaborations will help our staff understand how technology resources can be significantly useful in the classroom. Onsite visits between schools will be conducted to model and showcase what is taking place in the classes that are excelling in the use of technology. We will communicate and collaborate extensively by using The Learning Connection and will create communities of teachers with similar age levels of students and subject matter being taught.

Pike County has numerous technology experts who will assist in planning and presenting during the various phases of professional development. They are known for their outstanding Engineering, Bio-Medical, and Digital Electronics courses using the Project Lead The Way model (PLTW). The instructors for these hands-on courses will be great resources for the Washington staff.

Pike County School Corporation will be using the funds in this project to add additional laptops to their current mobile labs, increase the number of interactive systems and document cameras, as well as continued professional development. These additional technology tools will permit more efficient access to technology in the classroom thus further embedding technology as a tool for instruction. Pike County has used the philosophy that technology is a tool to assist teachers in providing increased active learning opportunities and greater student engagement.

LeAnne Kelley, Pike Central High School Principal and Phil Clauss, Pike County Technology Director will be coordinating the partnership with Rebecca Dayton, Washington Community Assistant Superintendent. Other individuals from Pike County that will be assisting with this partnership are Susan Bolton, Media Specialist, Alice Sims, English Teacher, and Ray Niehaus, PLTW Teacher.